



KLERITY™

Bringing **transparency** to networks, services and applications.

5G is sparking massive change in network architectures and the surrounding ecosystem. The migration from hardware to a complex nexus of network functions and virtual infrastructures is introducing new levels of risk for service providers and their complex ecosystem of vendors. The ability to efficiently detect and effectively resolve defects and failures across networks, services, devices and applications is critical to mitigating this risk, however traditional monitoring and assurance solutions offer limited visibility into these new software-centric architectures, increasing the likelihood of undetected failures and the erosion of trust within the ecosystem.

This is a problem for service providers and their teams who rely on that visibility to reduce churn, reduce operating costs, and improve the quality and performance of their services.

Meet KLERITY™

KLERITY is a solution framework consisting of a library of cloud-native functions and a set of applications that leverage them. KLERITY brings transparency to networks, services, devices, and applications, empowering operations, performance and quality teams to quickly identify service-impacting issues and their true root cause. While current monitoring and assurance solutions provide limited visibility into issues and require users to interpret and triage what they see, KLERITY provides transparency within, and across, network, service, device and application domains so that the “what, where and why” of an issue is readily clear. Through the collection, analysis and correlation of events, KLERITY simplifies troubleshooting, optimizes root-cause analysis and accelerates mean-time-to-repair. Overall, this powerful combination of capabilities enables network, service and application providers to build trust with both their ecosystem and the end users of the service, making KLERITY the only solution of its kind.

A solution framework for 5G and IoT monitoring, assurance and analytics.

Cloud-native, open and flexible, by design. With the lowest TCO.

BENEFITS

- Reduce time-to-market for new 5G and IoT services
- Manage the quality and performance of IoT applications
- Build trust and strengthen customer satisfaction
- Get to the real root cause faster
- Reduce operational costs by consolidating tools
- Lowest TCO and pricing independent of traffic volume

Cloud-Native Architecture Provides a Path to Full Automation

- Based on Kubernetes (K8s), a production-grade container orchestration framework for deployment scaling and management
- Designed to integrate with network orchestrators and infrastructure management APIs

Lowest Cost To Deploy and Operate

- Cloud-native functions enable the most efficient use of compute, storage and networking resources
- Leverages best-in-class open-source technologies such as Kubernetes, Redis, Hadoop-Spark, Google Protocol Buffer (GPB) and Zero Message Queue (ZeroMQ)
- Licensing model is decoupled from network traffic and based largely on subscribers, devices, endpoints and solution packages, enabling cost-revenue alignment and higher predictability of investments
- Broad range of deployment options from all-in-a-box to distributed: bare metal, virtual machines, containers, private/ public cloud
- Distributed data storage using Hadoop leverages existing infrastructure. Dedicated storage managers ensure fast search and retrieval of packets, events and metrics
- Ease of use, optimized workflows, enhanced data visualizations and pre-built reports with perspectives deliver the shortest learning curve, fastest time to root cause, and enable an OSS-as-a-Service model
- Easy to install and maintain - configuration is mostly automated; high configuration flexibility (CPU, memory, and more); and single component update results in short maintenance windows

Most Efficient, Elastic and Robust

- Fastest real-time event processor - High-performance data processing, built-in load balancers and automatic scaling deliver the lowest latency, zero dropped packets, and the ability to handle traffic bursts
- Google Protocol Buffer's (GPB) high-performance data serialization delivers fast and efficient data transfer and requires up to 50% less bandwidth
- Centralized correlation of control and user plane eliminates the need for expensive external session balancers and is a must to support CUPS and 5G SA network deployments

For teams who must assure performance, detect and resolve issues, reduce time-to-insight, align costs to revenue, and maximize existing investments.

KEY FEATURES

- Cloud-native architecture based on Kubernetes, open-source rich
- Fastest, real-time event processor
- Multi-source data collection and correlation
- Centralized correlation of control and user plane traffic
- Single, easy-to-use interface for monitoring, diagnosing and analyzing data

- Centralized NAS deciphering delegates computationally-intensive tasks to lower-cost, less-scarce compute resources and removes the need to distribute keys to remote sites
- Purpose-built storage managers overcome the inherent limitations of Hadoop Distributed File Systems (HDFS) and enable more-responsive applications, a better user experience and fast search (independent from the performance of HDFS nodes)
- Microservices-based architecture improves testability and problem isolation, in addition to scalability, making KLERITY more robust and minimizing downtime for users and other applications that depend on the system

Most Complete and Flexible

- Multi-source data collection and correlation enables the extraction of rich insights from network functions and underlying infrastructure (to deal with compute and microservice separation), as well as from across the end-to-end service path spanning multiple domains (e.g. for 5G and IoT services)
- Configurable input and output adapters, aggregator, service models, KPIs and reports minimize time-to-market for new SLA-based 5G and IoT services and ensure support for all relevant network and service scenarios
- Feeds and open APIs to access real-time events, metrics and KPIs
- Robust data management (e.g. multi-tenancy, data partition) enables regulatory compliance as well as support for MVNO scenarios, slicing, and more

KEY FEATURES

- Guided discovery of insights and root cause
- Customizable feeds and open APIs
- Control and User Plane Separation (CUPS) support
- Pre-built and customizable reports
- Hadoop-based distributed storage, enhanced for fast search and retrieval
- Supports any combination of fixed or mobile network protocols including SS#7, IMS, 2G, 3G, 4G and 5G

